

MOLYTEC AUSTRALIA, Unit 1, 9 Steel St, Capalaba, QLD Australia, 4157	
Tel. for Information: (07) 3245 2355 Last Updated: February 2011	Fax for Information: (07) 3245 2499 Page 1 of 3
Material Safety Data Sheet	MOLYTEC AERO SPARK

Classified as hazardous according to criteria of NOHSC.

1. Chemical Product / Company Identification

Product Name: **Molytec Aero Spark**
Product Type: Engine Starting Fluid
Product Size: 350g Aerosol Part No. M893
Proper Shipping Name: Aerosol UN No.: 1950 DG Class: 2.1
Sub Risk: n/a Hazchem Code: 3Y Poisons Schedule: 5
Product Use: Engine starting fluid.
Company Details: Molytec Australia P/L 1/9 Steel St Capalaba QLD Australia 4157
Phone: 07 3245 2355 Fax: 07 3245 2499

2. Hazards Identification

Safety Phrases

S2	Keep out of reach of children
S14	Keep away from heat, ignition sources and oxidisers
S23	Do not breathe vapour
S 24/25	Avoid contact with skin or eyes
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection
S60	This material and its container must be disposed of as hazardous wastes

Risk Phrases

R11	Highly flammable
R36/37/38	Irritating to the eyes, respiratory system and the skin
R51/53	Toxic to aquatic organisms and may have long term adverse effects on the aquatic environment
R65	May cause lung injury if swallowed
R66	Repeated exposure may cause drying and cracking of the skin

WARNING: Inhaling concentrated vapours ("Chroming") may prove fatal.

3. Composition and Information on Chemical Ingredients

Chemical Entity	CAS No.	Proportion
Petroleum Light Aliphatic	64742-89-8	30-60%
Diethyl Ether	60-29-7	10-30%
Dimethyl Ether	115-10-6	10-30%
Ingredients determined to be non-hazardous or below cut-off concentration	N/a	To 100%

4. First Aid Measures

Health Effects -Acute

Swallowed May cause stomach discomfort, nausea and vomiting. May cause chemical pneumonia if aspirated into the bronchial system during vomiting. May cause lung injury if swallowed.

Eye Irritant. Vapours of aerosols will cause severe irritation to eyes. Temporary clouding of the vision may be experienced but is transient.

Skin Irritant. Repeated exposures may cause drying and cracking of the skin. A few unconfirmed cases of skin sensitisation after prolonged or repeated exposures have been reported.

Inhaled High concentration of vapours can be harmful in enclosed spaces. Excessive inhalation of vapours can affect the central nervous system leading to a loss of coordination and impaired judgement. Prolonged exposure can lead to stupor or unconsciousness. Deliberate inhalation of concentrated vapours, commonly known as "chroming", may prove fatal.

First Aid Instructions

Swallowed Do not induce vomiting. Rinse mouth with water and give two 300ml glasses of water to drink. If patient involuntarily vomits, encourage to lean forward from the hips to avoid aspiration. If symptoms persist seek prompt medical assistance.

Eye Immediately hold eye open and flush with clean water for at least 15 minutes. While flushing, gently pull upper and lower eyelids away from eyes and ensure carefully flushed. If symptoms persist seek prompt medical attention.

Skin Remove contaminated clothing and footwear (while under safety shower if appropriate). Flush affected area with water for 3-5 minutes followed by washing gently with soap and water for a further 5 minutes. Rinse well and pat dry. If symptoms persist seek prompt medical attention.

Inhaled Remove patient (while wearing SCBA if concentrations are high) to fresh air. Allow to rest. Rinse mouth and nose with water. Provide artificial respiration if breathing stops. Seek prompt medical attention unless recovery is virtually immediate. Cases of "chroming" must be medically examined even if patient has apparently recovered.

First Aid Facilities Provide normal industrial first aid facilities including eyewash stations and safety showers as appropriate.

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Advice to Doctor Possible symptoms of chronic health effects

Prolonged or repeated skin exposure may lead to dermatitis. Prolonged exposure to high vapour concentrations may lead to CNS effects and liver or kidney disorders. "Chroming" may cause heart failure or damage and brain damage through CNS effects. Aspiration of vomitus may cause chemical pneumonitis. A few unconfirmed cases of skin sensitisation after prolonged or repeated exposures have been reported. A minor component (n-hexane, found in Petroleum Light Aliphatic) has been linked with causing damage to nerve ends in extremities (e.g. fingers or toes experience loss of sensation).

Possible aggravated pre-existing conditions

Asthmatics and sufferers of other bronchial disorders should exercise particular care when working with aerosols.

Suggested treated for acute symptoms, known antidotes

Provide supportive care and treatment based on the patient's reactions to the exposure. For further information contact the Poisons Information Centre.

5. Fire Fighting Measures

Flammability and Explosion Hazards

Vapour is highly flammable. Fire may produce irritating or poisonous gases. Heat may cause violent rupture of containers. Vapours may travel significant distances to a source of ignition and flash back to the point of origin. Vapours may "pool" in low-lying areas. In storage fires, aerosol cans may "bleve" spreading burning liquid in their travel thus spreading fires.

Hazardous Combustion Products

Carbon dioxide, carbon monoxide, complex hydrocarbons may be formed on combustion.

Suitable Extinguishing Media

Hazchem Code 3 [Y] Foam, dry chemical, water delivered as fine spray or fog. NB: water may be ineffective due to low flash point of material.

Precautions for Fire Fighters and Special Equipment

Wear SCBA and full turn out clothing. Avoid bodily contact with substance or run-off. Contain run-off for later collection and controlled disposal.

6. Accidental Release Measures

Emergency Procedures – Spills and Leaks (See section 13 for disposal considerations)

Switch off or remove all potential ignition sources. Prevent material entering drains or waterways. Send unnecessary personnel out of area. Wear full protective clothing including rubber boots and respirator. If ventilation is poor use SCBA. Spread sand, soil or other inert absorbent over liquid. When saturated, collect into pails or drums, fit lids, label and place in a safe area to await disposal. Collect undamaged cans for return to store. Collect damaged or leaking cans, place in recovery drums for return to supplier or disposal under local authority approval.

7. Safe Handling Information

Handling: Wear suitable protective clothing (see below). Ensure appropriate fire prevention measures are in place. Keep away from oxidising agents.

Storage: Store in accordance with AS/NZS 3833-98 or AS 1940 and local regulations. Note that many authorities require that aerosols are housed in caged enclosures to prevent the travel of "bleves". Keep away from incompatibles in accordance with the Australian Standards.

8. Exposure Control and Personal Protection

Exposure Standards The NOHSC has not established an exposure standard for this product. The standards for the ingredients have been set:

Substance	TWA	STEL
Petroleum Light Aliphatic	435 mg/m ³	545 mg/m ³
Diethyl Ether	1200 mg/m ³	1500 mg/m ³
Dimethyl Ether	760 mg/m ³	950 mg/m ³

Engineering Controls Use in well ventilated areas and ensure ventilation is adequate to maintain air concentrations below TWA's. Use local exhaust ventilation (flame-proof) in enclosed areas if necessary.

Personal Protection

Respirator Type Not usually required. If exposure standards may be exceeded use an organic vapour respirator to AS 1715 & 1716. Use SCBA in confined spaces.

Eye Protection Use safety glasses with side shields or goggles to AS 1337.

Glove Type Use butyl rubber or PVA gloves to AS 2161.

Clothing Wear Tyvec or cotton coveralls fastened at the neck and wrists. Supplement with PVA apron if required.

9. Physical and Chemical Properties

Appearance:	Colourless aerosol spray	Odour:	Aromatic
Freezing/Melting Point:	-141.5°C (gas)	Boiling Point:	-124.8°C (gas)
Density:	0.69	Vapour Pressure:	427 kPa (gas)
Solubility in Water:	Insoluble (gas is soluble)	Volatiles:	95% w/w
Flash Point:	-41°C (gas)	Flammability Limits:	13.45 to 26.7 % (gas)
Auto Ignition Point:	350°C (gas)		
Other Properties:	Incompatible with oxidising substances, heat and ignition sources.		

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10. Stability and Reactivity

Under all normal conditions of use at normal temperatures and pressure, the product is stable. Avoid contact with incompatibles including heat and ignition sources.

11. Toxicological Information

Dimethyl Ether: Inhalation Human TDLO 200 ppm; Oral Human LDLO 260 mg/kg; Skin Rabbit 360 mg open –mild; Eye Rabbit: 100mg –mild irritation. No data found for product as sold.

12. Ecological Information

Product is toxic to aquatic organisms and may have long-term adverse effects in the aquatic environment.

13. Disposal Considerations

Disposal must be in accordance with local regulation for hazardous industrial wastes.

14. Transport Information

Transport as:

S5
UN 1950
Class 2.1

Incompatible products:

Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with:

- Class 1 explosives
- Class 3 flammable liquids (where both flammable liquids and gases are in bulk)
- Class 4.1 flammable solids
- Class 4.2 spontaneously combustible substances
- Class 4.3 dangerous when wet substances
- Class 5.1 oxidising agents
- Class 5.2 organic peroxides
- Class 7 radioactive substances

15. Regulatory Information

None Available.

16. Other Information

Users should verify the currency of this data sheet if more than 5 years old. The information contained in this material safety data sheet is believed to be accurate on the date of issue and in accordance with the information available to us. Persons dealing with products referred to in this MSDS do so at their own risk. We accept no liability whatsoever for damage or injury however caused arising from use of this information or of suggestions contained herein.

POLICE AND FIRE BRIGADE:

DIAL 000

For further safety information contact Denis Brown at MOLYTEC AUSTRALIA on:

Tel: (07) 3245 2355 Fax: (07) 3245 2499

P.O. Box 5357, Alexandra Hills, QLD, Australia, 4161

Disclaimer

The information contained within this MSDS applies only to the MOLYTEC product to which the sheet relates. The information provided is based on our best knowledge at the time of issue.

The information contained within this MSDS is believed to be accurate and is given in good faith. However no warranty is made, either express or implied, regarding its accuracy or any liability arising out of the use of the information herein or the products supplied.

When used in other preparations, formulations, or in mixtures, it is necessary to ascertain whether the classification of the hazards has changed. The attention of the user is drawn to the possibility of creating other hazards when the product is used for purposes other than that for which it was recommended. In such cases a reassessment may be necessary and should be made by the user.

This safety data sheet should only be used and reproduced in order that the necessary measures are taken relating to the protection of health and safety at work.

It is the responsibility of the handlers to pass on the totality of the information contained within this document to any subsequent person(s) who will come in to contact with, handle or use this product in any way.

They should check the adequacy of the information provided within this MSDS before passing it on to their customers / staff.

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